

REMARKS

Claims presented for prosecution in this Application are claims 31-62. Claims 31-62 have been rejected over cited prior art. In view of Applicants' remarks below, Applicants respectfully submit that claims 31-62 are in condition for allowance. Accordingly, Applicants respectfully request that the present Response be considered and entered, the rejections to the claims be withdrawn, and that the case now be passed to issue.

Objections

The Examiner has objected to the disclosure for referencing claims by number. Applicants have corrected this informality. Specifically, the language referencing claims by number was replaced with "in accordance with the present invention." Thus, Applicants respectfully request that this objection be withdrawn.

The 35 U.S.C. § 103(a) Rejection of Claims 31-37, 40-53, and 56-62 over MAN in view of Stumbough

The Examiner has rejected claims 31-37, 40-53, and 56-62 as being obvious over MAN in view of Stumbough. Applicants note that U.S. Patent No. 5,904,893 to Stein is the U.S. counterpart to German Patent DE 296 11 704 ("MAN," as referenced by the Examiner). Hereinafter, Applicants will refer to this reference as "Stein." Applicants respectfully assert that Stein in view of Stumbough do not disclose each and every aspect of, at least, independent claims 31 and 47.

Independent claim 31 recites, *inter alia*:

"a formed piece that is fitted in said preformed, externally accessible recess in said cooling plate body" (emphasis added).

Independent claim 47 contains similar language. Specifically, claim 47 states, *inter alia*:

“fitting a formed piece in said preformed, externally accessible recess in said cooling plate body” (emphasis added).

In stark contrast, Stein does not disclose a formed piece that is fitted in a preformed, externally accessible recess in a cooling plate body. The Examiner references “pipe bend 4” as showing “a formed piece” that is fitted in the preformed externally accessible recess in the plate body. Applicants respectfully traverse this interpretation.

Pipe bend 4 in Stein *is incorporated by a casting operation into the cooling plate body*. More precisely, the pipes 3, the pipe bends 4, and the pipe sockets 2 are welded together to form a prefabricated pipeline, which is placed into a casting mold, and the molten copper is then poured around the pipeline so that the prefabricated pipeline is embedded in the copper cooling plate body after solidification of the melt (col. 3, line 66 to col. 4, line 8). Consequently, Stein neither teaches nor suggests to fit any formed piece in a preformed, externally accessible recess in a cooling plate body.

Stumbough does not overcome any of these deficiencies. However, Stumbough describes a clean-out fitting to be used in plumbing waste lines. Applicants respectfully submit that such a clean-out fitting would not have prompted a person of ordinary skill in the art to provide a preformed, externally accessible recess *in a cooling plate body* for fitting therein a formed piece with a deflection surface. Indeed, Stumbough’s T-fitting 2 has nothing in common with a cooling plate for an iron- and steelmaking furnace.

To establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (See MPEP 2143.03). As discussed above, the combination of references fails to teach or suggest all the claim limitations of independent claims 31 and 47, and those dependent thereon. Therefore, a *prima facie* case of obviousness has not been established, and withdrawal of the instant rejection is respectfully requested.

With respect to the outstanding obviousness rejection, Applicants also contend that the Examiner has indulged in impermissible hindsight in making the obviousness rejection. That is, the outstanding Office Action merely reflects the piecewise combination of various elements of various patents, which directly contradicts the rationale of MPEP 2143.01 that the “fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish *prima facie* obviousness.”

Thus, Applicants respectfully submit that neither of the cited prior art references teach or suggest “a formed piece that is fitted in said preformed, externally accessible recess in said cooling plate body,” as explicitly recited in claim 31, nor “fitting a formed piece in said preformed, externally accessible recess in said cooling plate body,” as explicitly recited in claim 47.

As Stein, in view of Stumbough, does not teach or suggest a formed piece or a formed piece fitting in a preformed, externally accessible recess, Applicants respectfully submit that the outstanding rejection has been overcome.

Applicants therefore respectfully submit that at least claims 31 and 47, and those dependent thereon, clearly distinguish over Stein in view of Stumbough.

Applicants earnestly believe that claims 31-37, 40-53, and 56-62 now clearly define over Stein in view of Stumbough; however, should the Examiner believe that there remains any outstanding issues, Applicants respectfully request that the Examiner contact Applicants’ Representative so as to expedite resolution of these outstanding issues, via an Examiner’s Amendment or the like.

The 35 U.S.C. § 103(a) Rejection of Claims 38, 39, 54, and 55 over MAN in view of Stumbough and further in view of Fukumoto et al.

The Examiner has rejected claims 38, 39, 54, and 55 as being unpatentable over MAN (hereinafter, “Stein”) in view of Stumbough and further in view of Fukumoto et

al. Applicants respectfully assert that Stein in view of Stumbough and further in view of Fukumoto et al. do not disclose each and every aspect of, at least, independent claims 31 and 47, from which claims 38, 39, 54, and 55 depend.

As discussed above, Stein and Stumbough do not disclose each and every aspect of claims 31 and 47. Applicants respectfully submit that Fukumoto et al. do not overcome the deficiencies of these references.

As mentioned previously, to establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (See MPEP 2143.03). As discussed above, the combination of references fails to teach or suggest all the claim limitations of independent claim 31 and 47, from which claims 38, 39, 54, and 55 ultimately depend. Therefore, a *prima facie* case of obviousness has not been established, and withdrawal of the instant rejection is respectfully requested.

With respect to the outstanding obviousness rejection, Applicants again contend that the Examiner has indulged in impermissible hindsight in making the obviousness rejection. That is, the outstanding Office Action merely reflects the piecewise combination of various elements of various patents, which directly contradicts the rationale of MPEP 2143.01 that the “fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish *prima facie* obviousness.”

Given that Stein in view of Stumbough and further in view of Fukumoto et al. does not teach or suggest each and every aspect of independent claims 31 and 47, as discussed above, Applicants therefore respectfully submit that claims 31 and 47, and claims 38, 39, 54, and 55, which depend thereon, clearly distinguish over Stein in view of Stumbough and further in view of Fukumoto et al.

Applicants earnestly believe that claims 38, 39, 54, and 55 clearly define over Stein in view of Stumbough and further in view of Fukumoto et al.; however, should the Examiner believe that there remains any outstanding issues, Applicants respectfully

request that the Examiner contact Applicants' Representative so as to expedite resolution of these outstanding issues, via an Examiner's Amendment or the like.

CONCLUSION

In view of the remarks above, it is respectfully submitted that claims 31-62 are allowable, and an early action to that effect is earnestly solicited.

The Examiner is invited to contact the undersigned at the number below to expedite resolution of any issues that the Examiner may consider to remain unresolved. In particular, should a Notice of Allowance not be forthcoming, the Examiner is requested to phone the undersigned for a telephonic interview, an Examiner's amendment, or the like, while the outstanding issues are fresh in the mind of the Examiner.

Please charge the fee for the attached Extension of Time to our Deposit Account No. 13-0235. It is believed that no additional fees or deficiencies in fees are owed. However, authorization is hereby given to charge our Deposit Account No. 13-0235 in the event any additional fees are owed.

Respectfully submitted,

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